

- He pointed out that large weights are more easily thrown than small weights. Some tire brands have better quality of balance than others.
- Out-of-balance wheels result in excessive tire-wear and reduce the handling characteristics of the car, especially at high speed or under difficult driving conditions.

A second important piece of information is from a hydrologist who works for a highway department.

- He noted that the amount of lead in street runoff is so high that it often fails water quality standards. In order to meet the standards there must be treatment of highway runoff. This would be prohibitively costly and presently there is no idea about how to remedy the problem. Again, from the data presented in this study, wheel weights are probably the major contributing cause for the continuing lead contamination of urban runoff and water ways.

Clearly, losing wheel weights is too common. Further reflection on the work suggests that there are many problems connected with lost wheel weights. These observations scream for a solution. After all the engineering invested in designing and building a car, one would expect some standards for wheels so that they securely hold wheel weights. Given the need for weights, as a first step, Federal performance standards should be mandated for wheels and wheel weights.

#### **Specific comments and suggestions:**

- Abstract and conclusion. Strike the sentence about challenging conventional wisdom concerning leaded gasoline. This study was not designed to evaluate that topic.
- The Introduction needs reorganization: page 4. I suggest you begin with paragraph 2; Then go to paragraph 1 and strike sentence 1. Add a phrase such as "another automotive source exists that accounts for additional past and present urban lead accumulation." Then paragraph three, adding the phrase "95% lead and" before 5% antimony....
- Page 5. Move the first paragraph to discussion. Keep paragraph 2.
- Methods section. Can you provide a figure of the diagram of the outer curb, median curb, street and sidewalk (is it adjacent to the curb?).
- Page 6. First line. Strike "using a digital scale".
- Page 7. I am puzzled by southwestern quarter of the street and northwestern three-quarters... Maybe a simple map is needed.
- Page 11. Strengthen the discussion with added paragraph from page 5 and address why wheel weights are being lost and possible remedy(s).

In summary, I appreciate this work. It is an excellent contribution toward applied environmental health. However, it needs revision, more discussion to support its contribution toward understanding the environmental impact of automotive lead sources, and suggested steps to remedy the situation. After revision, it deserves wide distribution.